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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/594,374	06/15/2000	Donald C.D. Chang	PD-200092	8501

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HUGHES ELECTRONICS CORPORATION  
PATENT DOCKET ADMINISTRATION  
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EXAMINER

WARD, RONALD J

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 07/31/2003

*J*

Please find below and/or attached an Office communication concerning this application or proceeding.

*PD*

**Office Action Summary**

Application No.

09/594,374

Applicant(s)

CHANG ET AL.

Examiner

Ronald J Ward

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5-6. 6) ☐ Other:

## DETAILED ACTION

### *Claim Objections*

1. **Claim 8** is objected to because of the following informalities:

In line 1 of claim 8 a reference is made to “the second beam”. However, there is no prior reference made to a second beam in claim 8 or in parent claim 6. Claim 1 makes reference to a second beam. The Examiner recommends either amending claim 8 to depend on claim 1, or replacing the word “the” with the word --a-- in claim 8, or adding a reference to --a second beam-- to claim 6, in order to correct this apparent lack of antecedent basis.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-2, 5-6, 8-12** rejected under 35 U.S.C. 102(b) as being anticipated by Tuck (USPN 5584047).

As to **claim 1**, Tuck discloses, in Figures 3B and 10B, a communication system for use with geosynchronous satellite systems (11 in Fig. 3B) broadcasting a first beam (18 in Fig. 10B) at a first frequency comprising:

a first stratospheric platform (20 in Fig. 3B) generating a second beam (26 in Fig. 10B) having the first frequency;

user terminals (32 in Fig. 3B) configured to receive the first beam and the second beam (see col. 1 lines 27-32, col. 2 lines 42-50).

As to **claim 2**, Tuck discloses everything as applied to claim 1 above. In addition, Tuck discloses that the user terminals comprise directional antennas (see col. 4 lines 24-29).

As to **claim 5**, Tuck discloses everything as applied to claim 1 above. In addition, Tuck discloses that the second beam is generated from a secondary payload (wherein the secondary payload is the output of amplifier 84 in Figure 10B).

As to **claim 6**, Tuck discloses a communication system for use with geosynchronous satellite systems broadcasting a first beam at a first frequency comprising:

a first stratospheric platform having a primary payload (uplink 68 in Figure 10B) and a secondary payload (downlink 26 in Figure 10B), said secondary payload generating communication signals having the first frequency.

As to **claim 8**, Tuck discloses everything as applied to claim 6 above. In addition, Tuck discloses that a second beam is generated from a secondary payload (wherein the second beam is the microwave energy in downlink 26 of Figure 10B).

As to **claim 9**, Tuck discloses a method for operating a communications system comprising the steps of:

generating a first beam (18 in Fig. 10B) using a first frequency directed at a service area (e.g., area in which antenna 32 is located) with a satellite (11); and

generating a second beam (26 in Fig. 10B) using the first frequency directed at the service area from a stratospheric platform (20 in Fig. 3B) (see col. 1 lines 27-32, col. 2 lines 42-50).

As to **claim 10**, Tuck discloses everything as applied to claim 9 above. In addition, Tuck discloses that said step of generating a second beam comprises the step of generating a second beam from a secondary payload (wherein the secondary payload is the output of amplifier 84 in Figure 10B).

As to **claim 11**, Tuck discloses everything as applied to claim 9 above. In addition, Tuck discloses that said satellite comprises a geostationary satellite (see col. 2 lines 38-50).

As to **claim 12**, Tuck discloses everything as applied to claim 9 above. In addition, Tuck discloses the step of generating a feeder link (see feeder link 50 from Uplink Transmitter 46 in Fig. 9B).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 3-4, 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuck.

As to **claim 3**, Tuck discloses everything as applied to claim 1 above. In addition, Tuck discloses, in Figure 1, a satellite system having multiple satellites (11). However, Tuck fails to explicitly recite a second stratospheric platform.

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It has been held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced (see *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tuck's communication system to include a second stratospheric platform generating a third beam having the first frequency, because otherwise a satellite broadcast receiver on the other side of the earth, for example, could not receive the signal from the first stratospheric platform.

As to **claim 4**, Tuck discloses everything as applied to claim 1 above. In addition, Tuck discloses that the user terminal receives signals from the first stratospheric platform and the second stratospheric platform (see col. 9 line 64 through col. 10 line 2 wherein it is disclosed that the user terminal receives signals in the  $K_u$ - band, which is also necessarily the band transmitted by the first and second stratospheric platforms).

As to **claim 7**, Tuck discloses everything as applied to claim 6 above. In addition, Tuck discloses, in Figure 1, a satellite system having multiple satellites (11). However, Tuck fails to explicitly recite a second stratospheric platform.

It has been held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced (see *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tuck's communication system to include a second stratospheric platform generating a third beam having the first frequency, because otherwise a user terminal on the

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other side of the earth, for example, could not receive the signal from the first stratospheric platform.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Campbell (USPN 6167263) discloses a communications system for use with satellite systems (54, 56, 58) broadcasting a first beam comprising multiple stratospheric platforms (50) as well (see Figure 2). Campbell is silent as to what frequency bands are used by the satellites and stratospheric platforms.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald J. Ward whose telephone number is (703) 305-5616. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost, can be reached at (703)305-4778.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 2600 Customer Service Office at (703) 306-0377.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 872-9314 (Technology Center 2600 only)

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).

RJW

July 24, 2003

  
ERIKA CARY  
PATENT EXAMINER